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RESEARCH DESIGN

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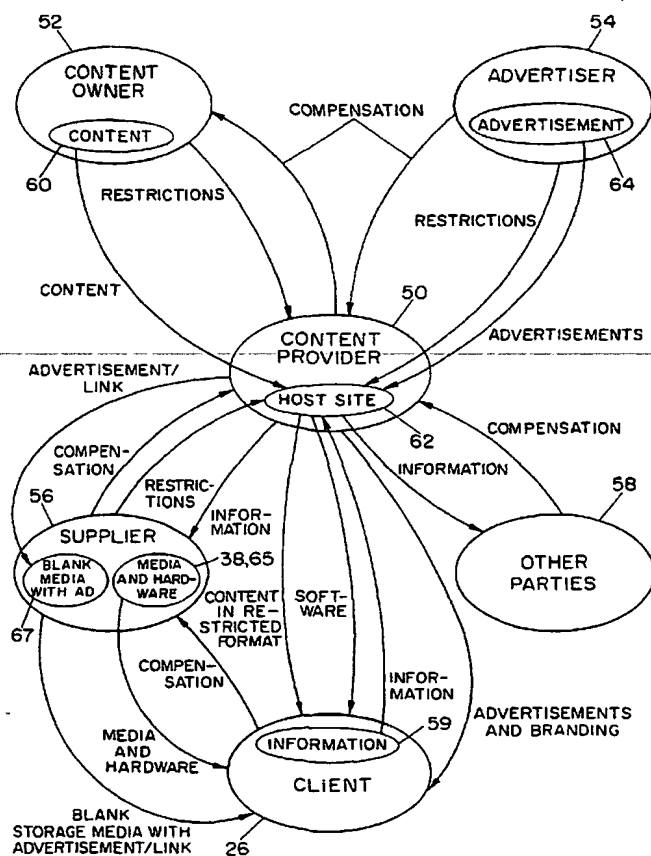
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(54) Title: METHOD AND SYSTEM FOR SECURELY DOWNLOADING CONTENT TO USERS



(57) Abstract: A method and system are provided delivering content from a host site via a network to a client by having a host site receive a query from a computer of the client for the content selected by the client to be received by the client computer. The host site provides the selected content to a uniquely identifiable storage medium associated with the client computer, associating the received content with the uniquely identifiable storage medium such that the received content can only be accessed from the uniquely identifiable storage medium. The host site further provides at least one advertisement to the client computer during at least one step of the method. The client is not charged a fee for the received content. The client computer registers with the host site at least the first time the client computer communicates with the host site. The content can be stored to a uniquely identifiable removable storage medium. The content is encrypted using a unique code associated with the uniquely identifiable storage medium. If necessary, a unique code is assigned and associated resulting in a uniquely identifiable storage medium.

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METHOD AND SYSTEM FOR SECURELY DOWNLOADING CONTENT TO USERS

SPECIFICATION

BACKGROUND OF THE INVENTION

5 The present invention relates to systems and methods for securely downloading copy-protected content over a network to users.

 With the growth of digital compression, such as the MP3 standard, the distribution of audio and video content provided via the internet is rapidly expanding. At present, it is estimated that hundreds of millions of illegal MP3 (music) files are
10 downloaded from the internet each month. Legal access to MP3 files via the internet is problematic because of the ease in which the legally downloaded files can be copied and further distributed. As a result, owners of content are apprehensive of having their content distributed over the internet because of the potential loss of revenue through unauthorized copying. Nonetheless, certain content may be legally available on the
15 internet either as promotional material or because the content owner has opted not to seek direct compensation from a user for the content provided. Audio and video content possibly can be provided in a format in which the downloaded content has limited playback capabilities. Alternatively, only a portion of the content may be provided, such as the first thirty seconds of a song. However, neither alternative is the optimum solution
20 to consumers who may want to download complete content for their permanent use.

 When content can be downloaded to a computer with no easy method of copying the content, a problem still remains in that the user, to best utilize the content, may need to have the content stored on a medium other than on the computer's fixed storage device, i.e., hard drive, or accessed from more than one type of device. Systems
25 for discouraging and/or preventing unauthorized copying from removable media are disclosed in U.S. Patent Application Serial Nos. 09/061,493 filed April 17, 1998 to Kupka et al., 09/191,666 filed November 13, 1998 to Kupka et al., 09/191,676 filed November 13, 1998 to Kupka et al. and 09/191,989 filed November 13, 1998 to Kupka et

al., which applications are commonly assigned to the same assignee as the present application, the disclosures of each which are incorporated herein by reference.

Both content owners and consumers must endure and if possible resolve the problems associated with financial transactions, generally, and specifically financial transactions over the internet. At the same time, companies have discovered benefits from advertising on the internet. The benefit from the advertisement is understood to be increased by the number of times an advertisement is seen ("eyeballs"), or the amount of time an advertisement is displayed to the user ("stickiness"). Moreover, advertisers hope to maximize the number of people who see their advertisements, generally, and more specifically hope to maximize the number of people from their target audience viewing the advertisements. Storage media with pointers to remote network sites are disclosed in U.S. Patent Application Serial No. 09/519,772 filed March 7, 2000 to Tolson, which application is commonly assigned to the same assignee as the present application and the disclosure of which is incorporated herein by reference.

In addition, manufacturers and suppliers of hardware and data storage media in which content can be played and stored are seeking ways to increase sales and brand awareness. Other parties are seeking ways to obtain information through a network about consumers using the network.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a method and system for delivering content over a network which overcomes disadvantages in the prior art.

This and other objects of the invention are attained by providing a system and method for delivering content from a host site via a network to a client by having a host site receive a query from a computer of the client for the content selected by the client to be received by the client computer. The host site provides the selected content to a uniquely identifiable storage medium associated with the client computer, associating the received content with the uniquely identifiable storage medium such that the received content can only be accessed from the uniquely identifiable storage medium. The host

site may further provide at least one advertisement to the client computer during at least one step of the method. In accordance with an aspect of the invention, the client is not charged a fee for the received content.

In accordance with an aspect of the invention, the client computer registers
5 with the host site at least the first time the client computer communicates with the host site. The registration includes providing client software to the client computer for enabling the client computer to transmit information to the host site about the client computer and further including creating a random key to be stored on the client computer and providing the client computer with content player software for accessing the received
10 content. The host site receives information about the client computer and/or the client from the client computer.

In accordance with another aspect of the invention, the content is stored to a uniquely identifiable removable storage medium. The content is encrypted using a unique code associated with the uniquely identifiable storage medium. If necessary, a
15 unique code is generated, assigned and associated with the storage medium causing the storage medium to be uniquely identifiable.

In another aspect of the invention, a party compensates the content provider for information obtained by the host site via the client computer about the client or the client computer. In another aspect of the invention, the unique code is permanently
20 stored on the storage medium, cannot be copied to a second storage medium and is not accessible to the client.

In yet another aspect of the invention, the host site, prior to providing the selected content, determines the supplier of the uniquely identifiable storage medium and only provides the selected content when the supplier is recognized by the host site as a
25 designated supplier of storage media.

In accordance with another aspect of the invention, a system is provided for delivering an advertisement to a client via a blank storage medium containing the advertisement. The advertisement may include a hyperlink to a site on a communications network. The blank storage medium may further contain software for automatically

displaying the advertisement when the blank storage medium is detected by a computer associated with the blank storage medium.

BRIEF DESCRIPTION OF THE DRAWINGS

Further objects and advantages of the invention will be apparent from a reading of the following description in conjunction with the accompanying drawings in which:

FIG. 1 is a block diagram illustrating a system in which the method and system of the present invention can be employed;

FIG. 2 is a block diagram of various preferred embodiments of the present invention;

FIG. 3 is a flow chart showing certain aspects of the present invention of FIG. 2;

FIG. 4 is a flow chart showing further detail of block 116 of FIG. 3;

FIG. 5 is a flow chart showing further detail of block 140 of FIG. 4;

FIG. 6 is a flow chart showing further detail of block 166 of FIG. 3;

FIG. 7 is a flow chart showing further detail of block 192 of FIG. 3;

FIG. 8 is a front view of a computer monitor displaying a dedicated content player;

FIG. 9 is a flow chart of a method for use in conjunction with preferred embodiment of the present invention; and

FIG. 10 is a flow chart of a preferred embodiment of the present invention.

DESCRIPTION OF PREFERRED EMBODIMENTS

In a typical embodiment of the invention illustrated in the drawings, in Fig. 1, a client computer 20 is coupled via a communications network 22 to one or more remote network sites 24. The client computer 20 can be any of a number of devices including but not limited to personal computers, laptop computers, notebook computers, digital set-top boxes, satellite receivers, internet appliances or any other device that can receive content (not shown in Fig. 1) via a communications network 22. The client computer 20 typically is operated by a client 26, i.e., a user who desires to receive the

content via the communications network 22. The content sought by the client 26 may include, but is not limited to, audio, video, text, games, animation, software and collectibles such as trading cards. More specifically, the content may include, but is not limited to, music, audio books, written materials such as books, magazines and lyrics,
5 electronic text, photographs, movies, music videos, video games, statistics and data.

The communications network 22 can be any network over which the client computer 20 can communicate with one or more remote sites 24. The communications network 22 may include but is not limited to a wide area network (WAN), a local area network (LAN), an intranet or the Internet. Further, the communications network can
10 include wireless access, call up access, fiber optic access, cable access and the like between the client computer 20 and remote sites 24. In an application where the communications network 22 is the internet, the remote sites 24 are commonly know as web servers or web sites.

The client computer 20, interfaced with the communications network 22
15 such as the Internet, can function as a network client and receive information, typically digital information, from the web servers on the network. Application software on the client computer 20, such as conventional "browser" software 28 is typically adapted to request downloads from one or more of the servers in response to commands entered by the client 26.

20 The Internet is a worldwide computer network via which host computer systems communicate with one another using the well-defined Internet Protocol (IP). Typically, each host has a unique Internet address. To further define the addresses of resources on the Internet, the Universal Resource Locator system was created. A
Universal Resource Locator (URL) is a descriptor that specifically defines a type of
25 Internet resource and its location. The client 26, therefore, can access a web server simply by entering the server's URL.

In an Internet application, a network browser 28 running on the client data processing system typically includes programming for downloading content from the World Wide Web (the "Web"). The browser 28 is an operating system component or
30 application program that allows the client 26 to retrieve content from the Web using any

number of methods including simple point-and-click or voice enabled commands or the like. Typical browsers allow for multimedia presentation of content such as text, audio and video.

The client computer 20 can communicate with the remote sites 24 via the communications network 22 using any protocol defined for the network. For example, where the communications network 22 is the Internet, the client computer 20 and remote sites 24 can communicate with each other using well known protocols such as Internet Protocol (IP), File Transfer Protocol (FTP), Hypertext Transfer Protocol (HTTP), Hypertext Markup Language (HTML), Extended Markup Language (XML) or the like.

Preferably, the client computer 20 includes an internal or external storage drive 30 for storing and retrieving digital information, a central processing unit (CPU) 32 that controls the functions of the client computer 20, and a user interface (UI) 34 via which the client 26 can communicate with the client computer 20. The CPU can communicate with the drive 30 via a bus 36 by sending commands to write or read digital information to or from a data storage medium 38. The bus 36 can be any of the various buses, such as parallel, generic serial, USB, SCSI, and so on.

The data storage medium 38 can be any of the various data storage media including but not limited to magnetic, optical, magneto-optical or solid state. The data storage medium 38 can be fixed in the drive 30, or removable therefrom. Similarly, the drive 30 can be fixed in the client computer 20, or removable therefrom. Where the medium 38 is removable from the drive 30, the medium 38 can be encased in an outer shell 40 to protect the medium from damage. In an exemplary embodiment of the present invention, the data storage medium 38 is a removable medium such as a compact disk, or a nonvolatile, removable, magnetic medium, such as a magnetic disk, for use with a portable data storage drive. Examples of the latter include ZIP®, CLIK!™ or JAZ® drives (Iomega Corporation, Roy, Utah). Thus, the data storage medium 38 is coupled to the client computer 20.

The client computer 20 generally includes a user interface 34 with one or more input devices 42 and one or more output devices 44. For example, where the client

computer 20 is a personal computer (PC), the input device 42 can include a mouse 42A and/or a keyboard 42B, and the output device 44 can be a monitor or video display terminal (VDT) 44A and can also include a speaker 44B. Similarly, where the client computer 20 is a digital set-top box (DSTB), the output device 44 can be a television screen, while the input device 42 can be a remote control unit.

Preferably, the data storage medium 38 has a plurality of data fields stored thereon, including a header field 46 and a content field 48. The content field 48 includes a representation, preferably a digital representation, of the audio or video content.

Preferably, the header field 46 includes a substantially unique ID code that identifies the data storage medium 38. Preferably, the unique ID code is stored in the medium 38 in a permanent, non-alterable fashion by the media manufacturer. As used herein, the unique ID code refers to those where the statistical likelihood of duplication is reasonably low. For example, if pseudorandom assignment is used some, albeit minor, duplication may be encountered over large numbers of media. Preferably, the content in content field 48 is encrypted by an encryption method that incorporates or employs the unique ID code. The unique ID code can be a serial number, a random or pseudo-random sequence of alpha numeric or ascii symbols or anything else that permits a computer, remote site or hardware device to distinguish among each individual data storage media of the same type as well as types of data storage media if necessary. Preferably, the unique ID code stored on the data storage medium 38 can not be determined, copied or erased by the client 26.

Fig. 2 is a block diagram of an exemplary embodiment of the present system showing the interrelationships of the entities within the system. Portions of the system shown in Fig. 2 may be used separately without having to include the remainder of the system. The system will generally include one or more content providers 50, one or more content owners 52, one or more advertisers 54, one or more storage media and hardware suppliers 56 and one or more clients 26. The system may also include other parties 58 who receive information 59 such as usage, marketing, demographic or other similar type information related to (e.g., click-through traffic) or supplied by the client 26 on the client computer 20 to the content provider 50. The content provider 50 obtains

permission, either directly or indirectly, from the content owner 52 to distribute content 60 to the clients 26, i.e., the users of the client computer 20, via a remote site 24 referred to as a host site 62 in Fig. 2. The host site 62, for example, can be a Web page of the content provider 50 on the Internet. The permission to distribute the content 60 may be
5 tempered by restrictions, such as that the content provider 50 may only distribute the content 60 by a method that prevents unauthorized copying of the content once distributed by the content provider.

In consideration for the permission to distribute the content 60, the content owner 52 can receive many types of benefits from the content provider 50 or benefits
10 from other parties 58. For example, a content owner 52 may receive compensation directly from the advertiser 54, i.e., a company seeking to advertise its products or services through advertisements 64 during all or part of the preparation for or transmission of the content 60 to the client 26. The content owner 52 receives compensation directly from the advertiser 54 or via the content provider 50. The
15 compensation may be structured any number of ways including but not limited to a fixed fee, a fee proportional to the number of times a potential client visits the host site 62 or a fee proportional to the number of times the same or different content 60 is delivered to clients 26. The content owner 52 may restrict the use of advertisements 64 placed prior to or during the downloading of the content owner's content 60.

20 The content provider 50, as stated above, typically arranges for advertisers 54 to advertise their products or services on the host site 62 for a fee. As with the content owners 52, the arrangements with the advertisers 54 can be structured in many ways. For example, the advertisements 64 may appear on the host site 62 prior to the client 26 selecting specific content 60 to be downloaded. Alternatively, the advertiser 64 may seek
25 to have its advertisements 64 placed on the host site 62 only during the downloading of the content 60. The advertiser can also target advertisements 64 by having an advertisement appear only when certain content or types of content are or are not selected for downloading to the client 26. The system, thus, allows the advertiser 54 to target certain clients 26. As with the content owner 52, the cost of the advertisements 64 can be
30 arranged in many ways, such as a fixed fee, a fee tied to client "hits" of the page

containing the advertisement (i.e., the number of times the client is exposed to the advertisement) or the number of downloads of content 60 in which the advertisement was displayed. Alternatively, the content owner 52 and the advertiser 54 can negotiate directly for establishing the mechanism for the advertiser to compensate the content owner for permitting distribution of the content 60 in association with the advertisements 64 of the advertiser.

The content provider 50 can also enter into arrangements with suppliers 56 (including manufacturers) of data storage media 38 and hardware 65. For example, by agreement, the content provider 50 may restrict the downloading of content 60 to specific data storage media 38 provided by one supplier 56. The compatibility of software or firmware for encryption and decryption of the content 60 may be limited to the data storage media 38 and hardware 65 of the supplier 56 who pay a fee to the content provider 50 to become an authorized supplier. As with the content owners 52 and advertisers 54, the compensation arrangement can be structured in many ways, including based on the number of downloads of content 60. Moreover, the content 60 may be downloaded in such a way that the hardware 65 capable of playback may be limited to suppliers 56 who have entered into an arrangement with the content provider 50. Further, the supplier 56 as part of the arrangement or possibly for an additional fee may display its trademarks and advertisements on the host site 62 as a branding partner of the content provider 50. Part of the arrangement between the supplier 56 and the content provider 50 can be that the data storage media 38 sold by the supplier, including "blank" data storage media, may contain advertisements for the host site and/or a hyperlink to the host site or even advertisements 64 or hyperlinks for the advertiser 54. Blank data storage media for purposes of this invention refers to storage media that are purchased or otherwise obtained by the user for their ability to store content as opposed to being purchased or otherwise obtained by the user solely for the content residing on the media at the time they are purchased or otherwise obtained. Preferably, an advertising blank storage media 67 contains software for displaying the advertisement to the user when the user accesses the blank storage media or automatically when the user's computer detects the blank storage media.

Fig. 3 is a block diagram of an exemplary embodiment of the method of the present invention. Starting at the top of Fig. 3 at functional block 100, the client 26 causes the client computer 20 to communicate with the host site 62 of the content provider 50. At block 102, once the client computer 20 establishes communications with the host site 62, the host site provides site information about the host site to the client 26, including but not limited to identification of the content 60 that can be provided, how the content is provided and any restrictions relating to the content being provided, such as the fact that content cannot be played back except on the data storage medium 38 from which it was first received from the host site. Along with the site information, the client 26 is provided with advertisements 64. At block 104, the host site 62 further requests certain initial login information from the client 26. Typically, such initial login information includes the client's name and email address. Optionally, the host site 62 may request a password so that clients 26 who are previous clients will be recognized by the host site.

Another alternative, shown at block 106, is for the host site 62 to check the client computer 20 automatically for cookies so that all or part of the login procedure can be bypassed. Cookies are information that reside on a computer such as the client computer 20 from a previous communication between the computer and a specific remote site such as the host site 62. For example, the information associated with the cookie when linked to a valid login name and password can provide the host site 62 with information required by the host site for download or information regarding client preferences pertaining to the downloading of content 60. At block 110, the host site 62 compares the cookie information and the client password information and, if necessary, the host site's stored database and if the cookie and password are associated, the host site bypasses the remaining login procedure at block 112 and the registration process at block 116. Additional information required for login may include but is not limited to the client's address and telephone number. In one embodiment, the host site 62 may verify the login information provided by the client.

In block 114, after the login information is accepted by the host site 62, the host site determines whether registration is required. The client 26 typically needs only to register the first time he or she seeks to obtain content 60 from the host site 62.

The host site 62 determines whether registration is required by any number of ways including whether the client computer 20 already has the requisite software for receiving and decrypting content 60 originating from the host site 62. The host site 62 may also check whether a cookie for the host site resides on the client computer 20 or whether the client 26 provided an authentic password that matches the client's name.

Block 116 represents the registration process which is further described in Fig. 4. In one embodiment, advertisements are displayed to the client during all or part of the registration process. As shown in block 118 of FIG. 4 if registration is required, the host site 62 prompts the client 26 to register as a condition of receiving content 60 from the content provider 50. The host site 62 also displays advertisements 64 to the client 26. In block 120 registration information 59 received by the host site 62 in block 118 is stored in a database associated with the host site. The information 59 requested during registration can vary greatly depending on the needs and desires of the content provider 50. The information 59 requested from the client 26 may include but is not limited to the email address and zip code if not already provided as part of the login process, the client's full mailing address and age. The content provider 50 can balance what information it would like to obtain with whether the registration process becomes too cumbersome that a client 26 does not complete the registration process. In an exemplary embodiment, in block 122, the host site 62, as part of the registration process, provides the client 26 with an agreement between the content provider 50 and the client in which the client in consideration for receiving the content 60 from the content provider grants permission to the content provider to download software onto the client computer 20, query the client computer for information 59. Such information 59 may include but is not limited to a computer identification number, the types of data storage media 38 and drives 30 associated with the client computer, the geographic location of the computer, a pre-existing unique ID code (i.e., serial or identification number) associated with any data storage medium 38 detected by the host site 62, and the capacity remaining on the data storage medium detected by the host site. The agreement may also seek permission to provide all or a portion of the information 59 obtained by the host site 62 to other parties

58. The agreement may further require the client 26 not to attempt unauthorized distribution of content 60 received from the host site 62.

Acceptance of the agreement can be requested by the content provider 50 at any time during the registration process. As shown in block 124, the client 26 typically
5 would be required to accept or decline the agreement before proceeding further. If the client 26 declines the agreement, the host site 62 can inform the client that it will be unable to provide the content 60 to the client or alternatively, as shown in block 126, the host site could break down the parts of the agreement and query the client 26 as to which terms the client will not agree and depending on the response in block 128, may permit or
10 not permit the client to receive content as shown in block 130. In block 132 the client 26 is informed if the host site 62 does not accept the client's response. If the host site 62 accepts the agreement, registration continues in block 134. During registration as shown in block 134, the host site 62 can also query the client 26 as to whether to permit a cookie to reside on the client computer 20 to streamline the login and downloading procedures
15 during subsequent visits to the host site. If yes, in block 136 the cookie is retained on the client computer 20 and if no, in block 138 the cookie is deleted from the client computer 20.

In block 140, as part of the registration process, the host site 62 downloads software to the client computer 20. The software downloading process provides another
20 opportunity for the host site 62 to display advertisements 64 to the client 26. In a typical embodiment, two types of software are downloaded. The first is a client software application which permits the host site 62 to obtain information 59 from the client computer 20 each time the client computer logs in to the host site. The information 59 may include but is not limited to determining (1) the types of drives associated with the client computer, (2) unique ID codes from data storage media 38 it detects and
25 recognizes, and (3) data storage media usage information. Additional exemplary functions of block 140 are further shown in Fig. 5.

Referring to Fig. 5, in block 141 the client software is downloaded and in block 142 a random key is created and stored in the client computer 20 such as on the
30 hard drive or other storage unit. The random key is used for encrypting and decrypting

the content 60. In block 144 the client software includes a prompt for providing a default destination for the content 60 to be received. If the client 26 desires a default destination, it is installed at block 146. In block 148, an autoexecute function is offered as part of the client software for initiating automatic play back of content 60 if the client computer 20
5 recognizes a removable data storage medium 38 containing content 60 obtained from the host site 62. It is either accepted by the client 26 and thus installed as shown in block 150 or if declined, the client in block 152 is asked if he or she desires the client computer 20 to prompt the client as to whether he or she wants to play back the content 60 residing on the installed removable data storage medium when one is detected. If yes, that software
10 is installed on the client computer 20 at block 154.

In block 158, the second set of software, a content player software application, is downloaded by the host site 62 to the client computer 20 during registration. The content player software uses the downloaded random key and the unique ID code associated with the data storage medium 38 that contains the content 60
15 to decrypt the content on the data storage medium at the time of playback. At this point, as shown in block 160, the registration software download is completed. Registration is now complete.

At block 161 of Fig. 3, the client 26 and/or the client computer 20 provide or update the host site 62 with the information 59. Next, in block 162, the host site 62
20 prompts the client 26 to select the content 60 to be received. In an exemplary embodiment, the content 60 to be received is music and the host site 62 provides a database listing of the content available arranged in any of a number of ways, including but not limited to alphabetical by artist, song, album or musical category, such as country, rock or classical. The host site 62 may also provide database search capabilities to assist
25 the client 26 in finding the content 60 desired. In block 164, the client 26 selects the music to be downloaded. In block 166, the host site 62 determines the destination for downloading the content 60.

Fig. 6 shows in more detail the method for determining the destination for downloading of software in block 166. At block 168 of Fig. 6, the host site 62 searches
30 for a default drive. In block 170 the host site 62 determines if the default drive was

found. If yes, in block 172, the host site 62 prompts the client 26 to decide if the client wants to download content to the default drive. If yes, in block 174 the download is set for the default drive. If the default drive is not found, in block 176, the host site 62 queries the client 26 as to where the content should be downloaded. In block 178, the client 26 selects the location and in block 180 the host site 62 sets the download for the selected location.

Returning to Fig. 3 from block 181, in block 182, the host site 62 determines if the data storage medium 38 residing in the drive 30 of the client computer 20 selected to receive the content 60 is acceptable to the host site for downloading content. If it is not acceptable, at block 184 the host site 62 informs the client 26 why the download cannot proceed and provides the client with the option to correct the problem at block 186. If the problem is corrected, at block 188, the client 26 is returned to block 166, determining download destination. If the problem is not corrected, at block 190, the host site 62 can return to the initial display at block 102.

Returning to block 182, if the selected media is acceptable, the host site 62 determines in block 192 whether the data storage medium 38 has or can have a unique ID code. In an exemplary embodiment, the data storage medium 38 is a removable data storage medium such as a ZIP® or CLICK!™ (Iomega Corporation, Roy, Utah). These removable storage media have unique serial numbers that cannot be erased, copied or easily determined by the client 26.

Fig. 7 further details the process of block 192, starting at block 194, where it is determined whether the storage medium 38 has a unique ID code. If yes, the process continues from block 192. In block 198 if the storage media 38 does not have a unique ID code and it is determined in block 190 that one can be assigned that cannot be copied or determined by the client and preferably cannot be erased, the host site 62 in block 200 creates and assigns the substantially unique ID code. If the unique ID code cannot be assigned, in block 202 the process returns to block 184 where the client 26 is informed that the content 60 cannot be downloaded to that media. Alternatively, the host site 62 can be programmed not to permit transfer of content 60 to removable storage media, or

even a hard drive, that does not have a pre-existing unique ID code that cannot be erased, copied or determined by the client 26. As stated above, the content provider 50 may limit the downloading of content 60 to specific data storage media, such as to the data storage media of the supplier 56.

5 Returning to Fig. 3, once the unique ID code is determined, the host site 62 in block 204 encrypts the content using the random key associated with the client computer 20. The random key uses the unique ID code in encrypting the content 60. In block 206, the encrypted content 60 is then downloaded to the data storage medium 38 previously selected by the client 26.

10 Throughout the time that the client 26 is viewing the host site 62, the host site can display advertisements 64 of the advertisers 54. The advertisements 64 can take many forms including visual, video, audio, static or dynamic animation, or any combination thereof. Branding for purposes of this invention, can be a form of advertisements 64. Certain points in the process of the client 26 receiving the content 60
15 provide unique opportunities for maximizing the value of the advertisements 64. For example, during registration in block 116, audio advertisements may be preferred. During periods in blocks 141 and 158 in which client software and content player software are being downloaded, video or dynamic animation may be preferred. During periods of downloading, the advertisement 64 can be integrated with an indicator of the
20 progress of downloading. Typically, a computer visually indicates the progress of downloading or copying information to the data storage media 38 of the computer. It may be as simple as a succession of boxes being filled in from left to right or a percent completion may be indicated numerically. In an embodiment of the invention, in addition to or in lieu of the standard indicator of completion, an indicator can be used that
25 incorporates an advertiser's product or service. For example, if the content 60 being downloaded includes baseball cards or data, the indicator may show a baseball progressing from being hit to reaching the fences with the position of the ball relative to the batter and the fence providing an indication of the percent completion of the download. The advertiser 54 for this display may, for example, be a baseball league.

The length of time that may be required for downloading large content, such as books, movies or music albums, may provide the opportunity for video advertisements.

Moreover, advertisements 64 could be embedded in the encrypted content such that advertisements could be displayed before, during or after each playback, including the possibility of having the advertisements 64 change over a period of time or after a number of plays. The advertisements 64 could be in the form of "skins", which are software applications that provide the look of the "player" or something else during playback. For example, when music is played using the compact disk drive of a computer, the computer monitor display 66 often provides a representation of a compact disk player 68 as shown in Fig. 8. The content 60 can be encrypted such that when the music is played back, the computer monitor display 66 takes on a look that incorporates advertising or, more specifically, branding information. Alternatively, the skin could be associated directly with the content 60. For example, when the content 60 is played back, in this instance a song, a picture of the artist or of an album cover can be integrated into the skin.

In block 210 after the content 60 is downloaded to the data storage media 38 associated with the client computer 20, the host site 62 may prompt the client 26 to determine if additional content is desired. In one embodiment, the host site 62 may only allow, for example, one song to be downloaded at a time so that the client 26 may have to separately download each song on an album. Such an embodiment would increase the number of times that the client 26 is exposed to the advertisements 64 associated with the host site 62 or more specifically, the content owner 52. If no other content 60 is requested, the client 26 at block 212 can return to the initial display of the host site at block 102 or can leave the host site.

Fig. 9 shows the steps of playing back the content 60. In block 214, whenever the client 26 desires to play back the content 60 using the client computer 20, the client 26 selects the content player software already installed on the client computer. In block 216, the client computer 20 searches for the software. If it is not found, in block 218, the client 26 is informed of the problem. If the player software is found, in block 220 the content player software searches for the content 60 associated with the host site

62 to determine the correct drive for the stored content. If the software cannot determine the location of the content 60, the client 26 is prompted in block 222 to supply the source drive or folder and possibly select the content 60 to be played back. Once the content 60 is located, in block 224 the content player software searches for the unique ID code of the media which has been cryptographically associated with the content 60. If the unique ID code is not found, in block 218 the client is informed of the problem. If the unique ID code is found, in block 226 the content player software decrypts the content 60 using the random key associated with the client computer 20 and the unique ID code associated with the data storage medium 38 containing the content. In block 228, the client computer 20 plays back the content 60 and, if applicable, displays an advertisement.

In situations where the data storage medium 38 is a removable data storage medium such as a ZIP® disk, the removable storage media containing the content 60 to be played back can be inserted into any appropriate drive designed to receive the removable data storage medium. The drive 30 may be associated with another computer (i.e., a computer other than the client computer 20) or may be associated with a dedicated playback hardware device such as a compact disk player or an MP3 player. If the hardware or computer associated with the removable storage medium 38 has content player software or firmware, the content 60 is decrypted and played as described above. If the hardware or computer does not have the content player software, it can be downloaded from the host site 62 or can be copied from the hard drive of the client computer 20. In an alternative embodiment, the content player application software can be downloaded directly from the host site 62 to the removable data storage medium containing the content 60, with autoexecuting software either to automatically install the content player software to any computer in which the removable data storage media is read, or at least to prompt the computer user to install the content player software.

The method and system for delivering content 60 meets the needs of content owners 52, clients 26, advertisers 54, content providers 50 and data storage media and hardware suppliers 56. Content owners 52 receive the fees for their work from the advertisers 54. The possibility of unauthorized distribution is minimized first because

unauthorized decrypting of the content 60 is difficult and second because there is no advantage for a person attempting unauthorized decryption because that person can just as easily obtain the content for free from the content provider's host site 62. Further, the content owner 52 has the option of licensing the content 60 directly with the content provider 50 or the advertiser 54 and can negotiate terms in any number of ways including a flat fee, per site visit, per download of content, among others. The client 26 benefits by obtaining a permanent copy of the content 60 for free. Moreover, by using a removable storage medium, the client 26 can playback the content 60 on any content player that can read the data storage medium 38. The client 26 also receives the ancillary benefit of better storage media 38 and hardware 65 as a result of providing the manufacturer and supplier 56 of these products with information 59 they can use to provide the client 26 with better products. Advertisers 54 benefit because they receive exposure of their advertisements 64, possibly for extended periods of time, not only to a large audience, but also to a targeted audience. The content provider 50 benefits either by receiving a percentage of the fees paid by the advertiser 54 or as a result of the exposure of the content provider to the target audience and the good will created by having a host site 62 that delivers free content 60 to clients 26.

The manufacturer and supplier 56 of the data storage media 38, especially the removable storage media, and the hardware 65 used to play back the content 60 benefit through increased sales of their products. Moreover, the manufacturer and supplier 56 of the storage media 38 and hardware 65 also benefit from the information 59 obtained from the client 26 and the client computer 20 regarding the use of the storage media 38 and hardware 65. Other parties 58 benefit, who obtain the information 59 the client 26 agrees to provide.

The content provider 50 further may also be the content owner 52, the supplier 56, the advertiser 54 or another party 58 and thus reaps the benefits ascribed above to these entities. Any of the above entities may further benefit from the method and system of the invention by taking on the role of another entity. For example, the supplier 56 of the removable storage media may also be the content provider 50. The supplier 56 may also be an advertiser 54. The content owner 52 may opt to be the

content provider 50 and also advertise on the host site 62. In other words, each of the content owner 52, the supplier 56, the advertiser 54 or an information seeking party 58 can run the host site 62.

Fig. 10 shows the method for providing an advertisement on a blank storage medium to a user. The advertisement may be a sample of content, such as a song from an album. In block 232, an advertisement is obtained by the supplier of the blank storage medium, which could include the manufacturer. In block 234, the blank storage medium is obtained. In block 236, the advertisement is loaded onto the blank storage medium. Alternatively, a hyperlink to a site on the communications network 22 at block 238. In block 240, software can be loaded onto the blank storage medium for accessing the advertisement by a computer associated with the storage medium. In block 242, software for automatically accessing the advertisement when the computer detects the blank storage medium can be installed. Finally, in block 244, the blank storage medium with the advertisement is provided to the user.

It will be understood by those skilled in the art that individual features or groups of features of the invention can be implemented separate from the rest of the overall system.

Although the invention has been described herein with reference to specific embodiments, many modifications and variations therein will readily occur to those skilled in the art. Accordingly, all such variations and modifications are included within the intended scope of the invention.

CLAIMS

1. A method for delivering content from a host site via a network to a client comprising the steps of:
 - receiving a query at the host site from a computer of the client for
5 the content selected by the client to be received by the client computer;
 - providing from the host site the selected content to a uniquely
identifiable storage medium associated with the client computer, associating the received
content with the uniquely identifiable storage medium such that the received content can
only be accessed from the uniquely identifiable storage medium; and
 - 10 providing at least one advertisement to the client computer via the
host site during at least one step of the method.
2. The method for delivering content according to claim 1 wherein
the client is not charged a fee for the received content.
3. The method for delivering content according to claim 2 further
15 comprising the step of registering the client computer with the host site at least the first
time the client computer communicates with the host site.
4. The method for delivering content according to claim 3 wherein
the registration includes:
 - providing client software to the client computer for enabling the
20 client computer to transmit information to the host site about the client computer and
further including creating a random key to be stored on the client computer; and
 - providing the client computer with content player software for
accessing the received content.
5. The method for delivering content according to claim 4 further
25 comprising the step of the host site receiving information about the client computer from
the client computer.

6. The method for delivering content according to claim 1 wherein the step of providing the content comprises providing the content to a uniquely identifiable removable storage medium.

7. The method for delivering content according to claim 1 further comprising encrypting the content using a unique code associated with the uniquely identifiable storage medium.

8. The method for delivering content according to claim 1 further comprising assigning a unique code associated with the uniquely identifiable storage medium and encrypting the content using the unique code associated with the uniquely identifiable storage medium.

9. The method for delivering content according to claim 1 further comprising:

determining whether the uniquely identifiable storage medium includes a pre-existing unique code associated with the uniquely identifiable storage medium; and

if no pre-existing unique code is detected, assigning a unique code associated with the uniquely identifiable storage medium.

10. The method for delivering content according to claim 1 further comprising the host site receiving from the client information about the client.

11. The method for delivering content according to claim 1 further comprising providing to a party for compensation information obtained by the host site via the client computer about at least one of the client and the client computer.

12. The method for delivering content according to claim 1 wherein the unique code is permanently stored on the storage medium.

13. The method for delivering content according to claim 1 wherein the unique code cannot be copied to a second storage medium.

14. The method for delivering content according to claim 1 wherein the unique code is not accessible to the client.

5 15. The method for delivering content according to claim 1 further comprising the host site, prior to the step of providing the selected content, determining the supplier of the uniquely identifiable storage medium and only providing the selected content when the supplier is recognized by the host site as a designated supplier of storage media.

10 16. The method for delivering content according to claim 1 further comprising limiting the providing of content to a blank storage medium that contains a second advertisement.

17. The method for delivering content according to claim 1 wherein the content is music.

15 18. A method for a client computer to receive content via a network comprising the steps of:
establishing communications with a host site;
querying the host site for available content for selection by a client;
receiving the selected content in a uniquely identifiable storage
20 medium wherein the received content can only be accessed from the uniquely identifiable storage medium; and
receiving at least one advertisement via the host site during at least one step of the method.

25 19. The method for receiving content according to claim 18 wherein an advertiser pays a fee for the advertisement and at least part of the fee paid by the

advertiser is received by the content owner and the client does not pay a fee for receiving the content.

20. The method for receiving content according to claim 18, further comprising the steps of:

- 5 registering with the host site at least the first time the client computer communicates with the host site;
 said registration including:
 receiving software for enabling the computer to transmit information to the host site about the client computer and further including creating a
10 random key; and
 receiving software for accessing the content.

21. The method for receiving content according to claim 19 further comprising the step of transmitting from the client computer to the host site information about the client.

- 15 22. The method for receiving content according to claim 19 further comprising the step of transmitting from the client computer to the host site information about the client computer.

23. The method for receiving content according to claim 18 wherein the step of receiving the content comprises receiving the content into a uniquely
20 identifiable removable storage medium.

24. A system for delivering content via a network comprising:
 a host site for providing content and an advertisement via the network;
 a client computer in communication with the host site via the
25 network for receiving the content and the advertisement from the host;
 a uniquely identifiable storage medium associated with the client computer for storing the received content; and

wherein the received content is accessible only from the uniquely identifiable storage medium.

25. The system for delivering content according to claim 24 wherein the content is received from the host site free of charge.

5 26. The system for delivering content according to claim 25 wherein the client computer contains information and contains software for providing the information to the host site.

27. The system for delivering content according to claim 26 wherein the information includes marketing information.

10 28. The system for delivering content according to claim 26 wherein the information includes information relating to storage media

29. The system for delivering content according to claim 24 wherein the client computer is associated with software for accessing the content.

15 30. The system for delivering content according to claim 25 wherein the uniquely identifiable storage medium comprises a permanent unique code substantially not copiable or accessible by a client.

31. The system for delivering content according to claim 26 wherein the received content is music.

20 32. A system for delivering content via a network comprising:
a host site for providing content via the network;
a client computer in communication with the host site via the network for receiving the content from the host site and providing information associated with the client computer to the host site;
a uniquely identifiable storage medium associated with the client
25 computer for storing the received content; and

wherein the received content is accessible only from the uniquely identifiable storage medium.

33. The system for delivering content according to claim 32 wherein the content is received from the host site free of charge.

5 34. The system for delivering content according to claim 33 wherein the uniquely identifiable storage medium comprises a permanent unique code substantially not copiable or accessible by a client.

35. The system for delivering content according to claim 34 wherein the received content is music.

10 36. A system for delivering an advertisement to a client comprising a blank storage medium containing an advertisement.

37. The system for delivering an advertisement according to claim 36 wherein the advertisement includes a hyperlink to a site on a communications network.

15 38. The system for delivering an advertisement according to claim 36 wherein the blank storage medium further contains software for automatically displaying the advertisement when the blank storage medium is detected by a computer associated with the blank storage medium.

39. A method for delivering an advertisement to a user of storage media comprising:
20 loading the advertisement onto a blank storage medium; and
 providing the blank storage medium with the advertisement to the user.

40. The method for delivering an advertisement according to claim 39 further comprising installing software onto the blank storage medium for accessing the
25 advertisement by a computer associated with the blank storage medium.

41. The method for delivering an advertisement according to claim 39 further comprising installing software onto the blank storage medium for automatically accessing the advertisement by a computer when the computer detects the blank storage medium.

5 42. A method for a content provider to deliver content to a client via a network comprising:

arranging with at least one advertiser to pay a fee for providing at least one advertisement to the client during at least one step of the process of delivering the free content;

10 arranging with at least one content owner to provide the free content of the content owner to the client in exchange for compensation from the fee for the advertisement;

associating the content to a uniquely identifiable storage medium made accessible to the host site by the client via the network;

15 providing the client via the network with the advertisement and the associated content without receiving a fee from the client for the content; and

wherein the associated content is accessible to the client only from the uniquely identifiable storage medium.

20 43. The method for a content provider to deliver content according to claim 42, further comprising obtaining information associated with a computer used by the client to receive the content.

44. The method for a content provider to deliver content according to claim 42 wherein the content is music.

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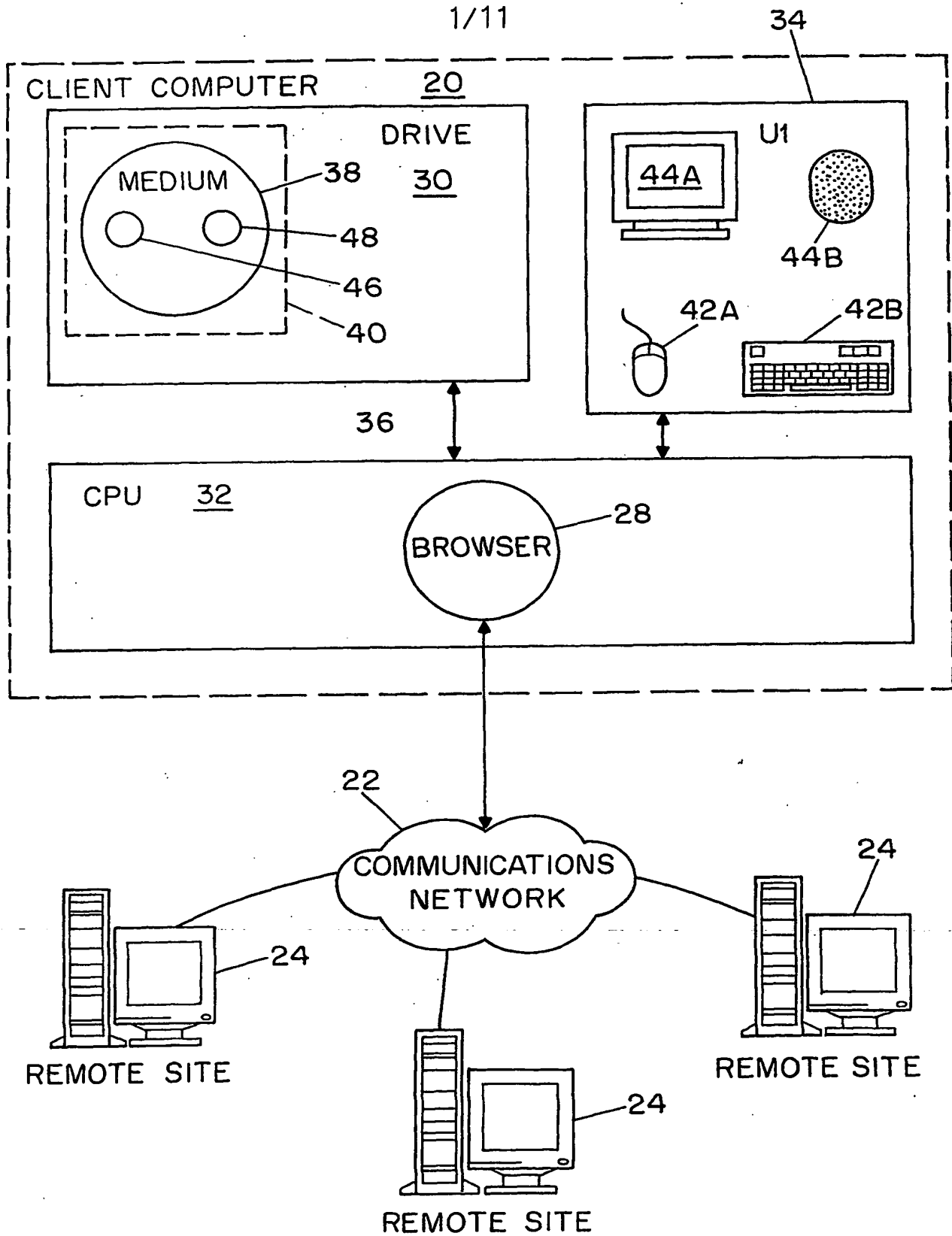


FIG. 1

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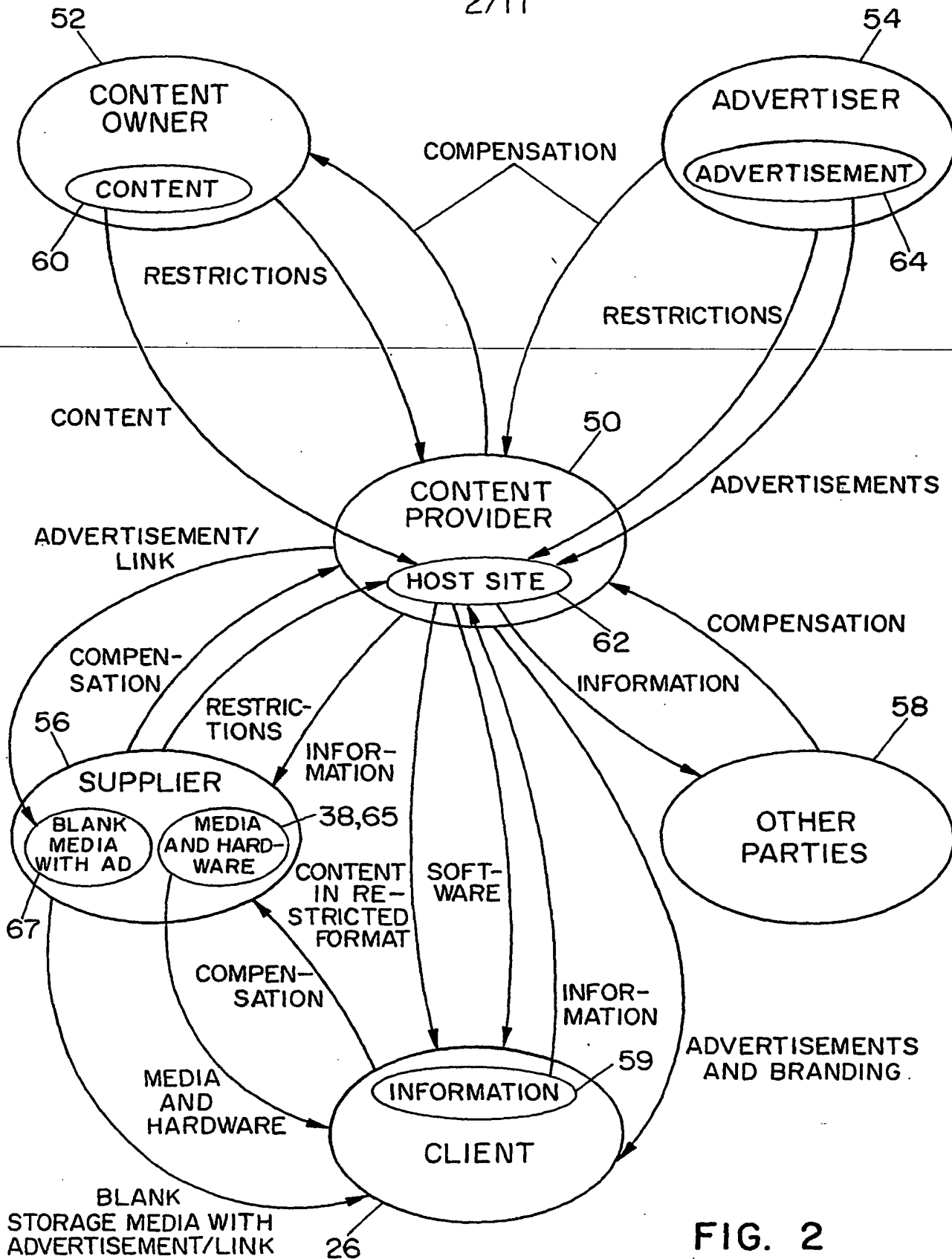
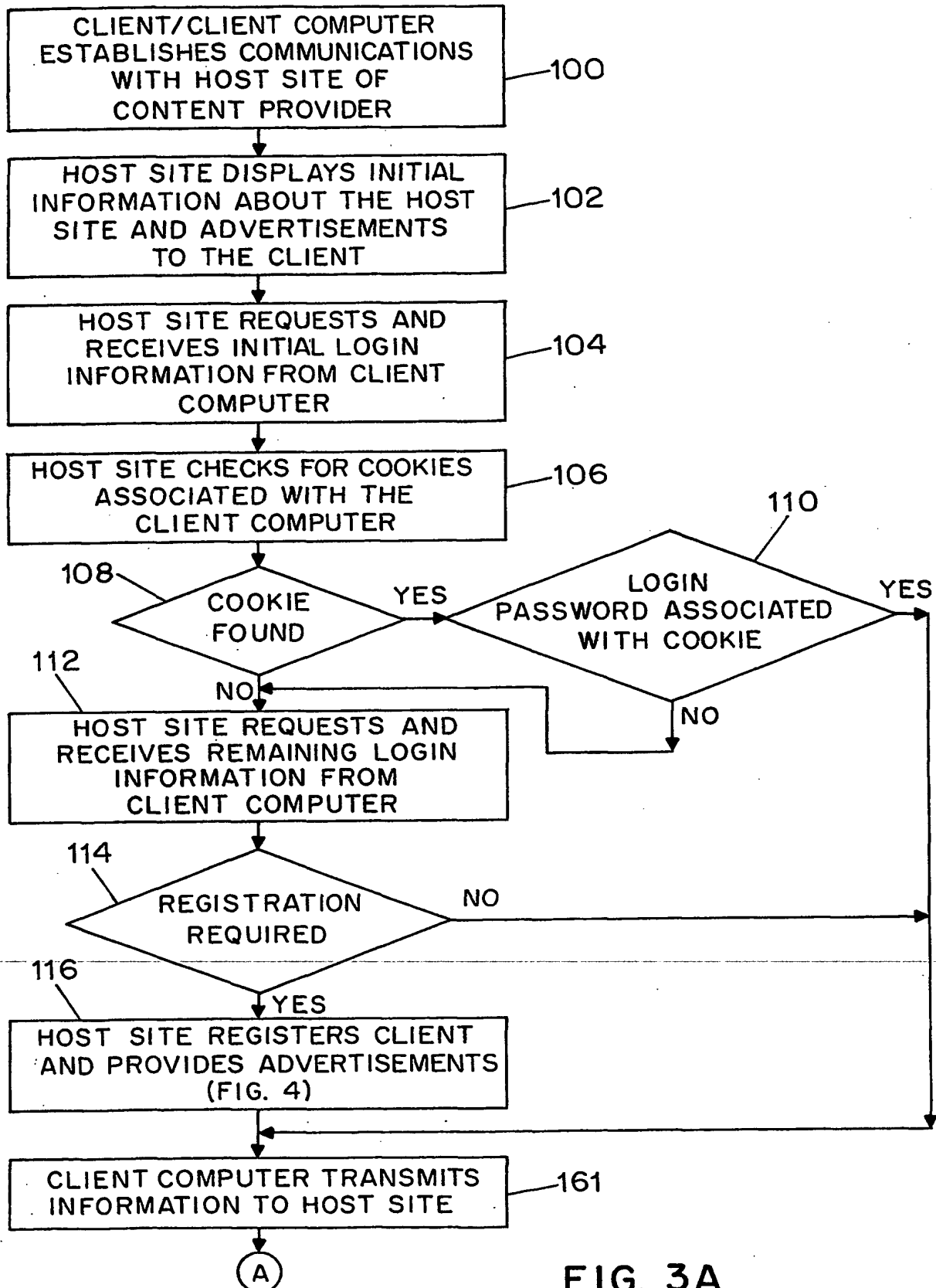


FIG. 2

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TO FIG. 3B

FIG. 3A

FROM FIG. 3A

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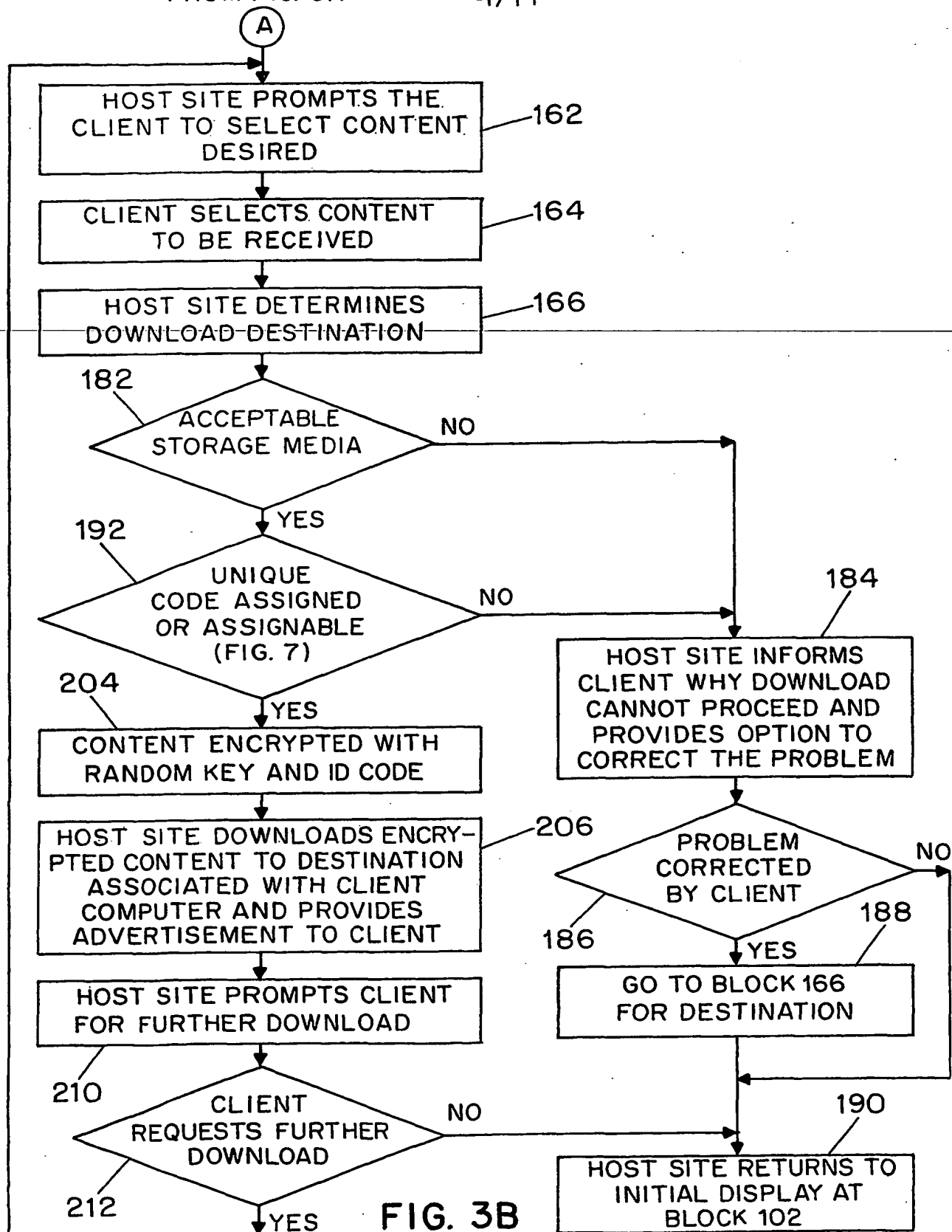


FIG. 3B

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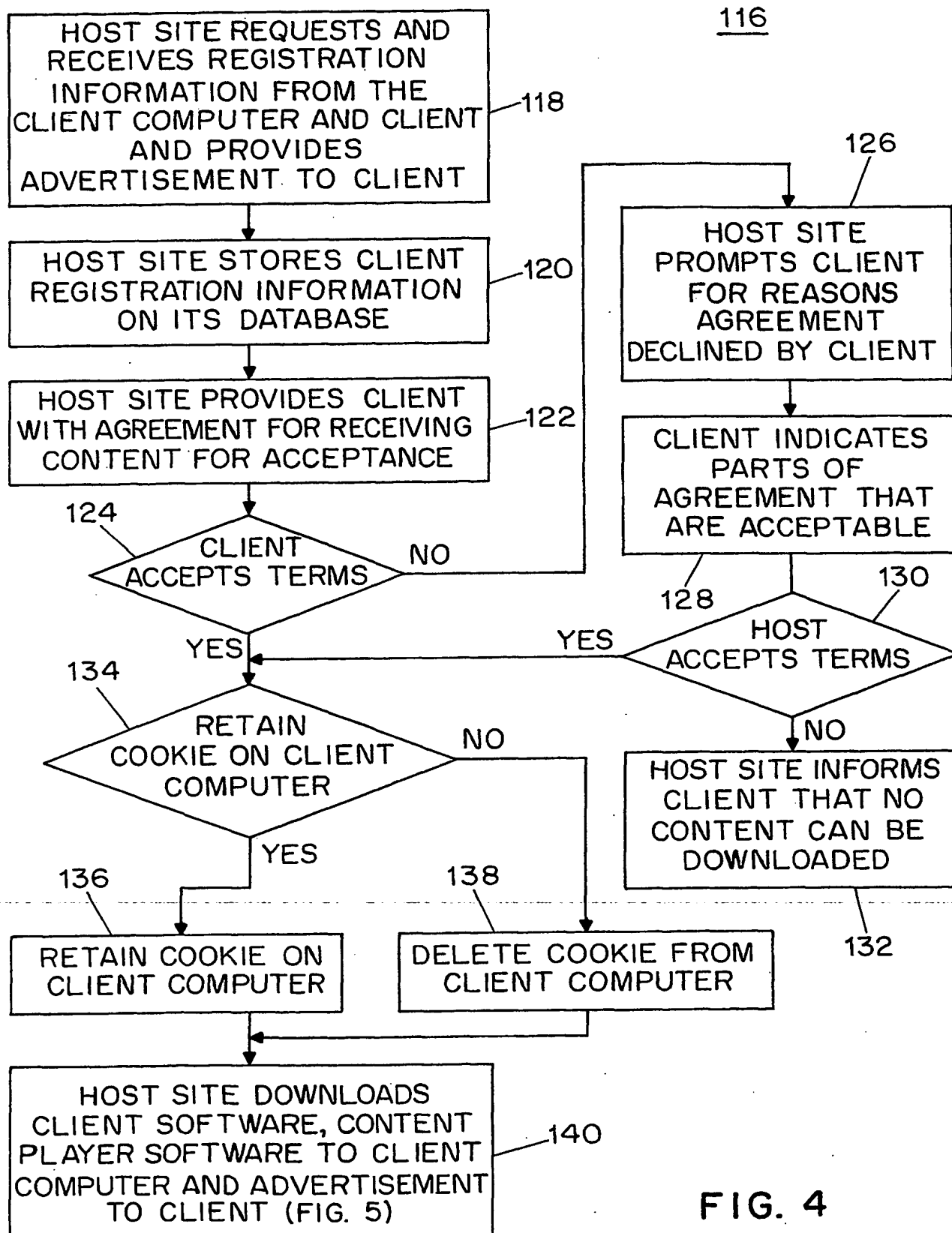


FIG. 4

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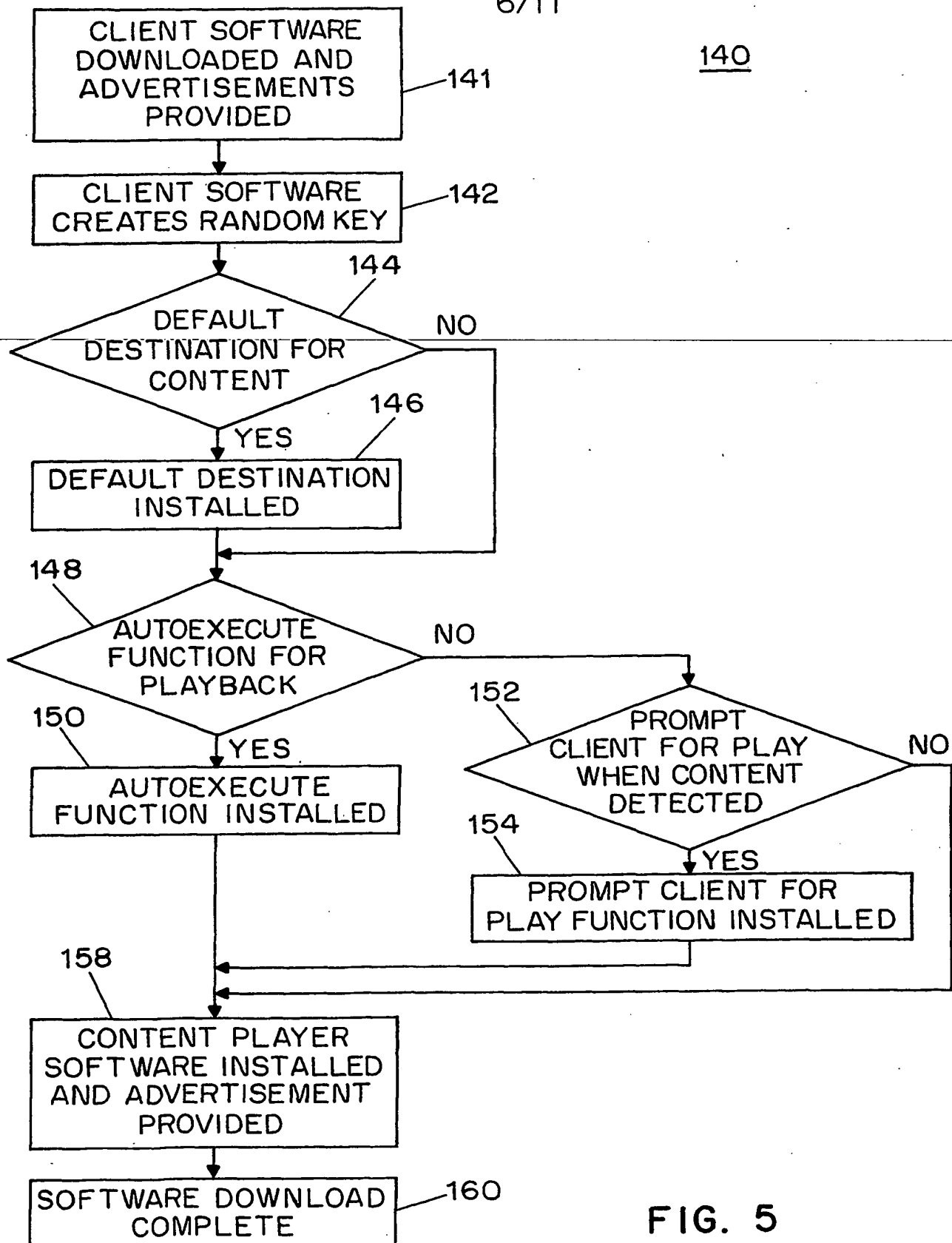
140

FIG. 5

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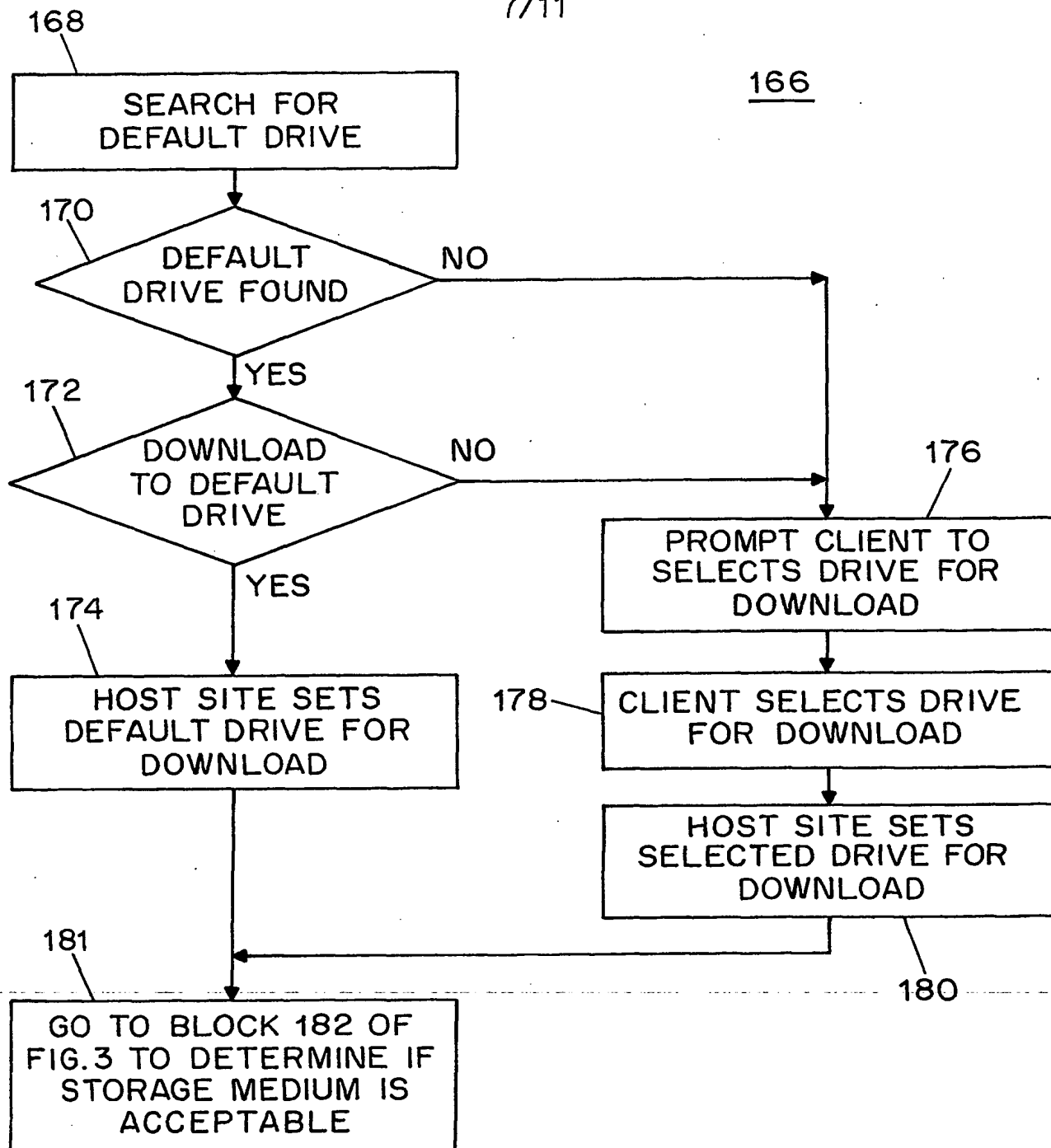


FIG. 6

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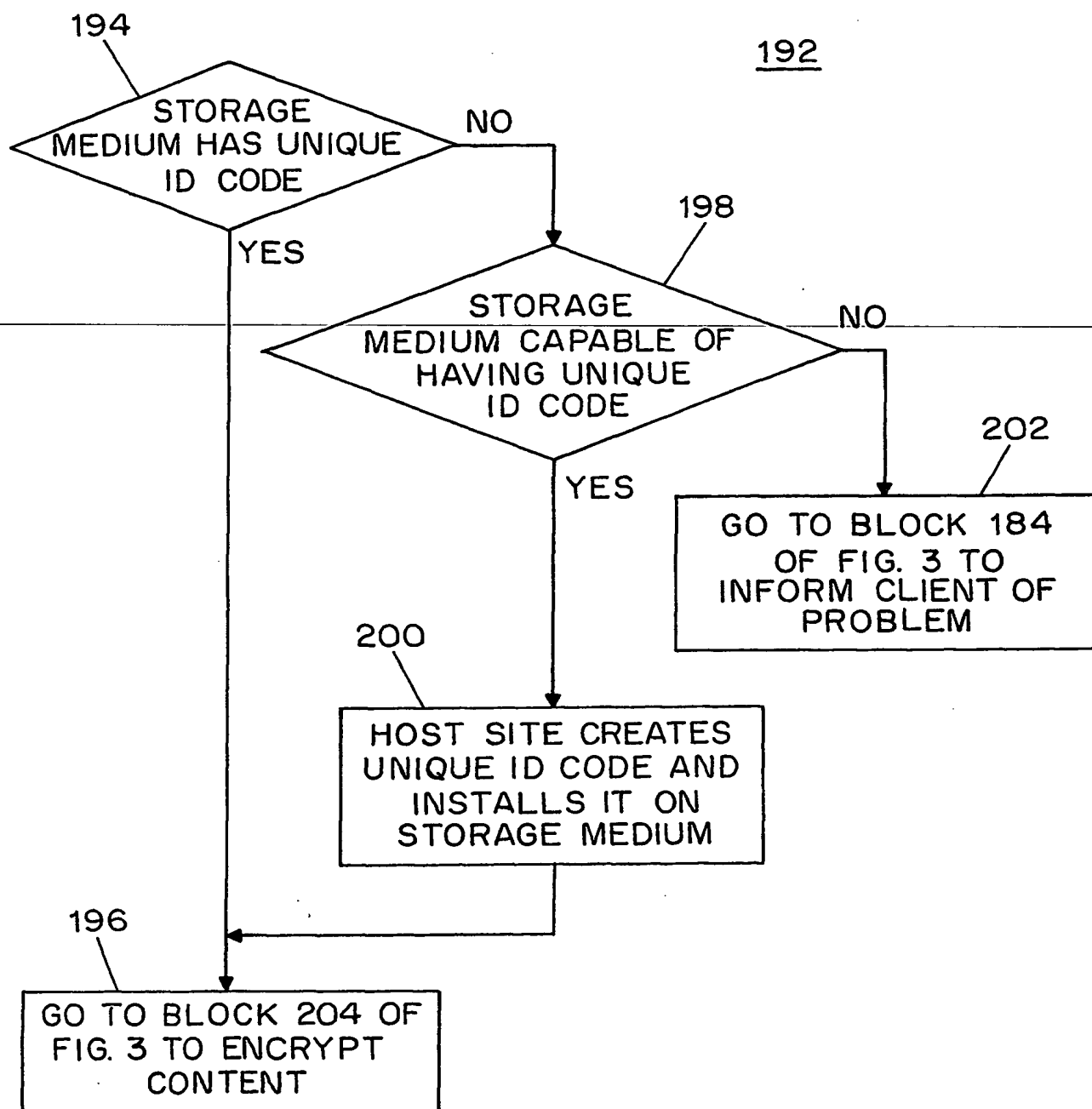


FIG. 7

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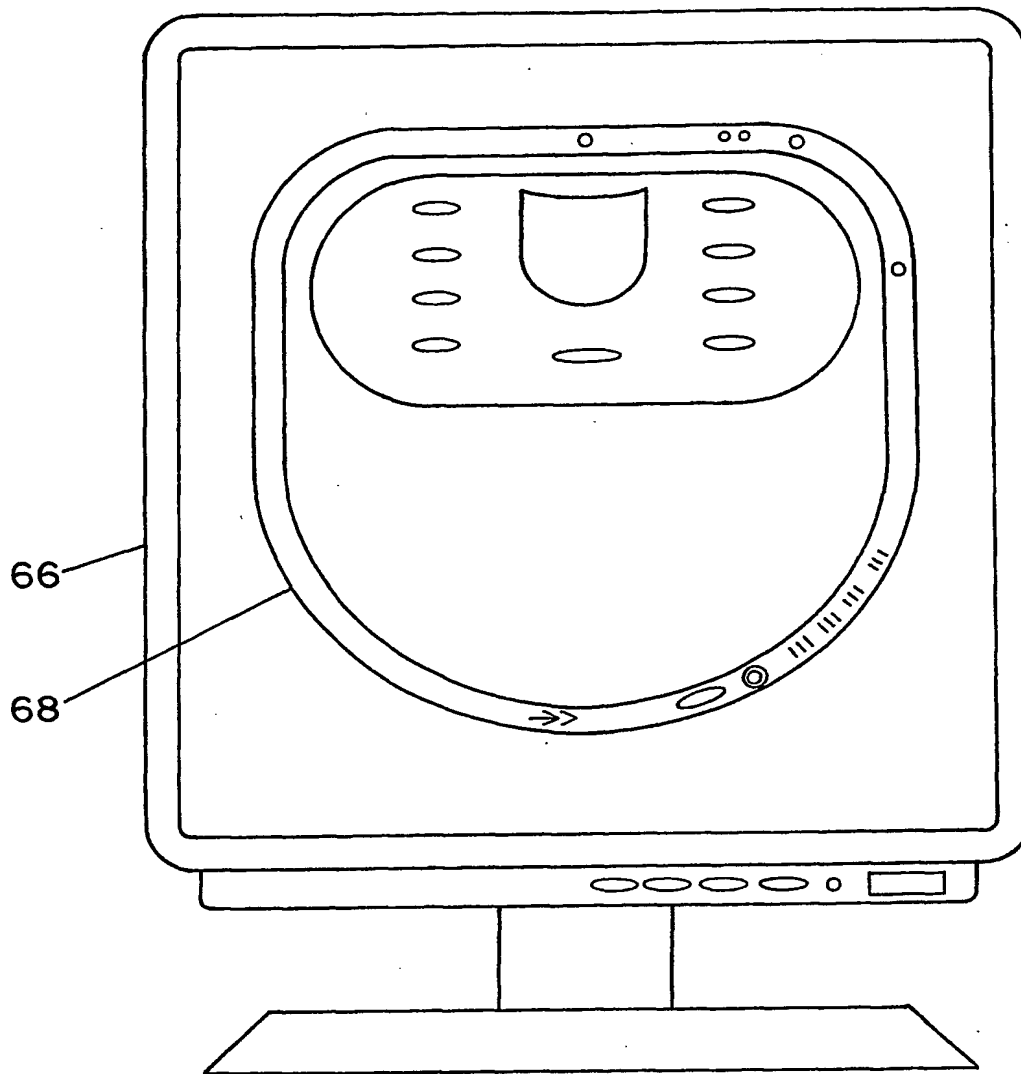


FIG. 8

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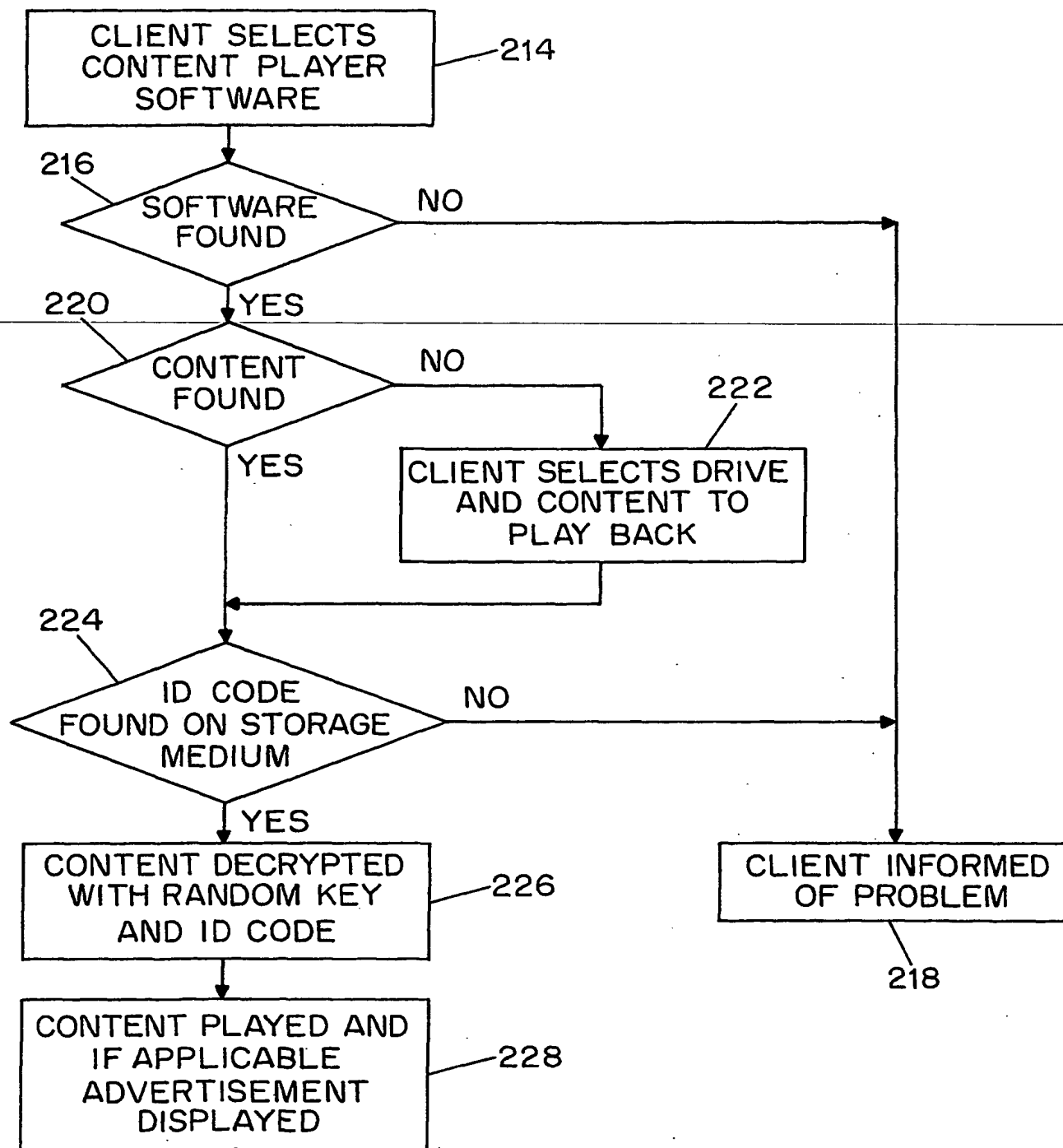


FIG. 9

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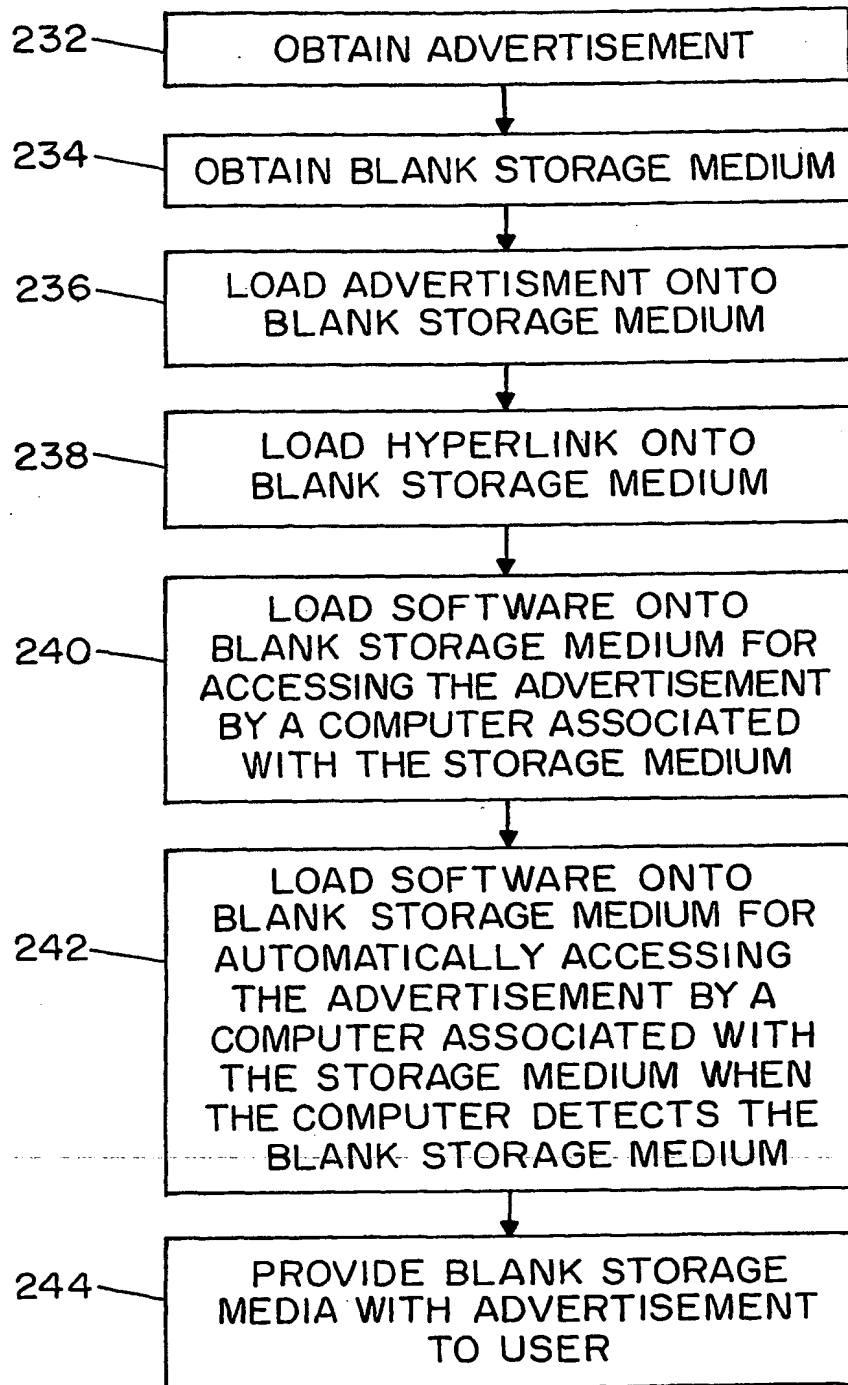


FIG. 10

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(57) Abstract:

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PATENT COOPERATION TREATY

PCT

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference 33101-PCT P0615	IMPORTANT DECLARATION	Date of mailing(day/month/year) 06/09/2002
International application No. PCT/US 01/ 40470	International filing date(day/month/year) 09/04/2001	(Earliest) Priority date(day/month/year) 18/04/2000
International Patent Classification (IPC) or both national classification and IPC		G06F1/00 G06F17/60
Applicant IOMEGA CORPORATION		


This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established on the international application for the reasons indicated below**

1. ☒ The subject matter of the international application relates to:
 - a. ☐ scientific theories.
 - b. ☐ mathematical theories
 - c. ☐ plant varieties.
 - d. ☐ animal varieties.
 - e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
 - f. ☒ schemes, rules or methods of doing business.
 - g. ☐ schemes, rules or methods of performing purely mental acts.
 - h. ☐ schemes, rules or methods of playing games.
 - i. ☐ methods for treatment of the human body by surgery or therapy.
 - j. ☐ methods for treatment of the animal body by surgery or therapy.
 - k. ☐ diagnostic methods practised on the human or animal body.
 - l. ☐ mere presentations of information.
 - m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art.
2. ☐ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

☐ the description
☐ the claims
☐ the drawings
3. ☐ The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.
4. Further comments:

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

The claims relate to subject matter for which no search is required according to Rule 39 PCT. Given that the claims are formulated in terms of such subject matter or merely specify commonplace features relating to its technological implementation, the search examiner could not establish any technical problem which might potentially have required an inventive step to overcome. Hence it was not possible to carry out a meaningful search into the state of the art (Art. 17(2)(a)(i) and (ii) PCT; see Guidelines Part B Chapter VIII, 1-6).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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